

SOLE DECLARATION FOR PATENT APPLICATION

As the below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name:

I believe that I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled

HUMAN STEM CELLS AND MONOClonAL ANTIBODIES

is attached hereto.

was filed on February 6, 1984 as Application

Serial Number _____ and was

amended on _____

(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

Prior Foreign Application(s)

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application(s) for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Country	Application Number	Date of Filing (day, month, year)	Date of Issue (day, month, year)	Priority Claimed Under 35 U.S.C. 119
				Yes <input type="checkbox"/> No <input type="checkbox"/>
				Yes <input type="checkbox"/> No <input type="checkbox"/>
				Yes <input type="checkbox"/> No <input type="checkbox"/>
				Yes <input type="checkbox"/> No <input type="checkbox"/>

Prior United States Application(s)

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Application Serial Number	Date of Filing (day, month, year)	Status — Patented, Pending, Abandoned

And I hereby appoint, both jointly and severally, as my attorneys with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith the following attorneys who are all members of the Bar of the District of Columbia, their registration numbers being listed after their names:

Donald W. Banner, Registration No. 17,037; Harold J. Birch, Registration No. 16,527; Edward F. McKie, Jr., Registration No. 17,335; William W. Beckett, Registration No. 18,262; Dale H. Hoscheit, Registration No. 19,090; Rodger L. Tate, Registration No. 27,399; Joseph M. Potenza, Registration No. 28,175; Scott F. Partridge, Registration No. 28,142; Alan I. Cantor, Registration No. 28,163; and James A. Niegowski, Registration No. 28,331.

Robert P. Blackburn (30,447)

All correspondence and telephone communications should be addressed to Banner, Birch, McKie and Beckett, One Thomas Circle, N.W., Washington, D.C. 20005, telephone number (202) 296-5500, which is also the address and telephone number of each of the above listed attorneys.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signature Curt P. Civin Date Feb. 16, 1984
Full Name of Sole Inventor Civin First Given Name Curt I.
Family Name Civin Second Given Name _____
Residence Baltimore, Maryland
Citizenship United States
Post Office Address 2217 South Road, Baltimore, Maryland 21209

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)
CURT I. CIVIN)
Serial No.: 670,740) Group Art Unit 127
Filed: February 6, 1984) Examiner: E. C. Weimar
For: HUMAN STEM CELLS AND)
MONOCLONAL ANTIBODIES)

DECLARATION

Honorable Commissioner of Patents
& Trademarks
Washington, D. C. 20231

Sir:

I, Curt I. Civin (referred to herein as the inventor), do hereby declare:

1. THAT, I am the sole inventor of the subject application;
2. THAT, any subject matter claimed in the present application that is common to the subject matter disclosed in Strauss et al, "MY-10, A Human Hematopoietic Progenitor Cell Surface Antigen Identified by a Monoclonal Antibody", Experimental Hematology, (Lawrence), 11 (Suppl. 14), p. 205, 1983, is derived from the work of the inventor, is not the original contribution of the co-author who is not a co-inventor, and is a publication of the inventor's presently claimed invention;
3. THAT, the non-inventor, co-author of the article referred to in paragraph 2, Dr. Strauss, did not contribute in an inventive capacity to the subject matter claimed in the subject application; and
4. THAT, in the aforesaid article, Dr. Strauss contributed by performing experiments under my supervision.

I hereby further declare that all statements made herein of my own knowledge are true and that all statements on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

4/15/86

(Date)

Curt I. Civin

Curt I. Civin

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)
CURT I. CIVIN) Group Art Unit: 127
Serial No. 670,740) Examiner: E. C. Weimar
Filed: February 6, 1984)
For: HUMAN STEM CELLS AND)
MONOCLONAL ANTIBODIES)

RULE 132 DECLARATION

Honorable Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Sir:

I, CURT I. CIVIN, do declare:

1. THAT, I am the inventor of the subject application, Serial No. 670,740.
2. THAT, I am Director of Pediatric Oncology at the Oncology Center of Johns Hopkins University, Baltimore, Maryland.
3. THAT, at my direction and under my supervision a series of experiments were performed to determine the reactivity of the RFB-1 antibody of Bodger to various peripheral blood cell types. The antibody was obtained from Dr. Bodger. The results of those experiments are shown in attached Exhibit 1.
4. THAT, the experiments were performed by use of known antibodies such as leu M3, leu 15, leu 14, leu 11, leu 5, leu 1, which type for specific blood cell types, and by use of the fluorescence activated cell sorter. The methodology used is specifically described in Experimental Hematology, Vol. 15, pp. 10-17 (1987) in the Materials & Methods section.
5. THAT, my own blood was used as a source of peripheral blood.
6. THAT, RFB-1 labels lymphocytes in the blood, as demonstrated on page 5 of the attached data sheets.
7. THAT, RFB-1 labels monocytes in the blood, as demonstrated on page 6, 16 and 18 of the attached data sheets.
8. THAT, RFB-1 labels blood T cells which are leu 1⁺ and leu 5⁺, as demonstrated on pages 7 and 9 of the attached data sheets.
9. THAT, RFB-1 labels blood NK cells, as demonstrated at pages 11 and 15 of the attached data sheets.

10. THAT, RFB-1 labels blood B cells, as demonstrated at page 13 of the attached data sheets.

11. THAT, these results were confirmed in multiple other experiments.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application of any patent issued thereon.

Dated: May 28, 1987

Curt I. Civin

Curt I. Civin

VJ3390

Double Label Experiment on Peripheral Blood
Lymphs, Grans, & monos.

Peripheral Blood donor: Curt Cirin
of cells / test = 1×10^6

1(1)	Peripheral Blood	C, GM	+ G & M FITC	
2(2)	"	"	+ FITC	" + MoPC
3(3)	"	"	+ FITC	" + IgG, -PE
4(4)	Peripheral Blood	C, GM	+ Leu 1 + 10A1R + kPE	
5(5)	PB L, G, M	+ RFB-1	+ FITC	+ Leu 12. F
6(6)	P.B. L, G, M + Tcell	+ RFB-1	+ FITC	+ IgG, -PE
7(7)	P.B. L, G, M + Tcell	+ RFB-1	+ FITC	+ Leu 1 - PE
8(8)	"	+ RFB-1	"	+ Leu 5 - PE
9(9)	TNKo	"	+ RFB-1	" + Leu 11c - PE
10(10)	Tbcell	"	+ RFB-1	" + Leu 14 - PE
11(11)	"	"	+ RFB-1	" + Leu 15 - PE
12(12)	"	"	+ RFB-1	" + TFR - PE
13(13)	+ MP	"	+ RFB-1	" + Leu M3
			(KA 12-8)	
14(14)	PB L, G, M	+ Beenstein	+ FITC	+ IgG, -PE
15(15)	"	+ Beenstein	"	+ Leu 1 - PE
16(16)	"	+ Beenstein	"	+ Leu 5 - PE
17(17)	"	+ Beenstein	"	+ Leu 11c - PE
18(18)	"	+ Beenstein	"	+ Leu 14 - PE
19(19)	"	+ Beenstein	"	+ Leu 15 - PE
20(20)	"	+ Beenstein	"	+ TFR - PE
21(21)	"	+ Beenstein	"	+ Leu M3 - PE

Did it work?
Little or
no staining.